6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Original) A method for taxonomic identification of a biological analyte comprising:

(a) exposing a solution containing the analyte to a ligand specific for the analyte of interest that has been covalently tethered to a substrate surface with a photostable linker at a distance of at least six Å for the capture of proteins;

(b) separating the bound analyte from the non-binding components of the solution containing the analyte by physical separation, washing or both; and

(c) interrogation of the ligand-tethered substrate surface for analyte binding.

22. (Original) The method of claim 21, wherein the biological analyte is selected from the group comprised of:

(a) proteinaceous toxins; and

(b) cytosolic proteins.

23. (Original) The method of claim 21, wherein the ligand is a peptide, usually three to twenty amino acids long, specific for a proteinaceous toxin.

24. (Original) The method of claim 21, wherein the ligand is a peptide, usually three to twenty amino acids long, specific for a proteinaceous hormone.

25. (Original) The method of claim 21, wherein the ligand is a peptide, usually three to twenty amino acids long, specific for a cytosolic protein.

26. (Currently Amended) The method of claim 21, wherein the ligand is a peptide that does not contain tryptophan or tyrosine and detection of the captured analyte is accomplished through the intrinsic fluorescence of the protein.

27. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the fluorescence of a reactive dye conjugate exposed to the protein before capture of the analyte by the tethered ligand surface.

28. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the fluorescence of a reactive dye conjugate exposed to the protein after capture of the analyte by the tethered ligand surface.

29. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the radioactivity of a reactive compound exposed to the protein before capture of the analyte by the tethered ligand surface.

30. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the radioactivity of a reactive compound exposed to the protein after capture by the tethered ligand surface.

31. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the luminescence of a reactive dye conjugate exposed to the protein before capture of the analyte by the tethered ligand surface.

32. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the luminescence of a reactive dye conjugate exposed to the protein after capture of the analyte by the tethered ligand surface.

33. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the phosphorescence of a reactive dye conjugate exposed to the protein before capture of the analyte by the tethered ligand surface.

34. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the phosphorescence of a reactive dye conjugate exposed to the protein after capture of the analyte by the tethered ligand surface.

35. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the optical absorbance of a reactive dye conjugate exposed to the protein before capture of the analyte by the tethered ligand surface.

36. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the optical absorbance of a reactive dye conjugate exposed to the sample after capture of the analyte by the tethered ligand surface.

37. (Original) The method of claim 21, wherein the detection of the captured analyte is accomplished through the fluorescent quenching of the fluorescent tethered ligand surface upon binding of the protein.

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Cancelled)

45. (Cancelled)

46. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Cancelled)

53. (Currently Amended) ~~The method of claim 51, wherein the ligands utilized in the array are tethered with a photostable linker at a distance of at least six Å from the substrate surface for the capture of proteinaceous toxins.~~ A method for identification of a protein analyte (proteinaceous toxin or cytosolic protein) comprising:

(a) exposing a solution containing the protein analyte to an array of different peptide ligands which have been covalently tethered with a photostabile linker to a substrate surface at a distance of at least six Å from the substrate surface;

(b) separating the bound protein analyte on the ligand array from the non-binding components of the solution by physical separation, washing or both; and

(c) interrogating the ligand-tethered substrate surface for protein analyte binding.

54. (Cancelled)

55. (Cancelled)

56. (Cancelled)

57. (Cancelled)

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75. (Cancelled)

76. (Cancelled)

77. (Cancelled)

78. (Cancelled)

79. (Cancelled)

80. (Cancelled)

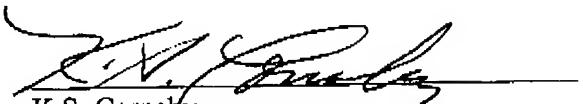
81. (Cancelled)

82. (Cancelled)

83. (Cancelled)

Applicant requests that the foregoing Amendment be entered prior to examination.

Respectfully submitted,



K.S. Cornaby
Jones Waldo Holbrook & McDonough PC
Attorneys for Applicants
170 South Main Street, Suite 1500
Salt Lake City, UT 84101
(801) 521-3200
ksc@joneswaldo.com